REMARKS

Applicants have now had an opportunity to carefully consider the Examiner's comments set forth in the Office Action of March 18, 2005.

Reconsideration of the Application is requested.

The Office Action

Claims 1-23 remain in this application.

Claims 1, 12 and 16-23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sorkin (U.S. Patent No. 5,898,823) and in view of Irie (U.S. Patent No. 6,606,164).

Claims 13-15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sorkin (U.S. Patent No. 5,898,823) and Irie (U.S. Patent No. 6,606,164), and further in view of Suzuki (U.S. Patent No. 5,270,775).

The Present Application

The present application is directed to a communications system, in which the direct communications between a network and a marking device engine are provided. The marking engine controller, e.g. the DFE controller, is restricted from the bulk communication flow by segregating the marking engine jobs and marking engine control data. The marking engine control data is routed directly to the marking engine. The marking engine print job data is routed to the DFE controller for converting a document, presented as a page description language (PDL), into a form that can be printed by a specific marking engine, for example, the DFE controller translates the marking engine print job data into byte definitions per pixel. Because the DFE controller is a critical component of the system, the DFE controller is advantageously restricted from processing any additional data such as marking engine control data.

Sorkin is directed to a network which includes a client computer, a spooler / network server and a printer. (Col. 3, lines 42-43). The job request generated by the client computer is transmitted to the spooler. The spooler transmits the job to the printer. (Col. 3, lines 44-45, 54-55). The client computer also transmits server queries to the network server. The network printer may transmit server specific

printer status information to the network server. (Col. 5, lines 53-55). The network server is predominantly used to receive and transmit both job data and control data from the client computer to the printer. After initial communication from the client computer is sent via the network server or spooler and received by the printer, the printer acknowledges the job event with an acknowledgment that is sent to the client computer. (Col. 5, lines 45-50). Having determined the network address of the printer and stored the same in a memory field, the client computer can thereafter directly access the network printer. (Col. 5, lines 53-59). The client computer can also continue sending both the control data and print job data via the network server.

Claims 1-6 Distinguish over Sorkin and Irie

Claim 1 calls for among other elements: a network interface controller for segregating the job data and the control data, wherein the segregated control data is communicated directly between the network interface controller and the document processing device independently from the job data. It is asserted in the Office Action that Sorkin discloses a network interface controller which segregates the job data and the control data. Applicants respectfully traverse.

Sorkin is directed to a network which includes a client computer, a spooler / network server and a printer. (Col. 3, lines 42-43). The job request generated by the client computer is transmitted to the spooler. The spooler transmits the job to the printer. (Col. 3, lines 44-45, 54-55). The client computer can also transmit server queries to the network server. The network printer may transmit server specific printer status information to the network server. (Col. 5, lines 53-55).The network server is used to receive and transmit both job data and control data until the communications with the printer are established. These are the very two functions that the present application is directed to segregating. E.g., an interface controller is employed to intentionally separate the print job data from all the other data and to de-route the other data directly to the printer. The data flow to the DFE is restricted to devote processing resources of the DFE only to the print job data operations. Furthermore, after Sorkin establishes the communications between the client computer and the printer, the client computer sends both print job data and control

data to the printer and receives back the same. Therefore, neither before nor after the communications between the client computer and the printer are established, Sorkin does not separate the control data from the print data. **Irie** describes a system which includes a printer server. The printer server includes the data conversion part which converts the print data delivered from the spool control part to form a job which is transmitted to the printer. Irie is not concerned with segregating job data from all other data. Neither Sorkin, nor Irie, taken separately or in combination, discloses or suggests using two separate processing devices; one for translating the print job data into printing signals and another for segregating print jobs from "other" requests coming to the printer and routing the segregated "other" requests directly to the printer.

It is therefore respectfully submitted that **claim 1 and dependent claims 2-6** distinguish patentably and unobviously over Sorkin and Irie.

Claims 7-18 Distinguish over Sorkin and Irie

Claim 7 calls for among other elements: a network interface controller for distinguishing the remote communication signals as job data or control data; wherein the job data is communicated from the network interface controller to the document processing device independently from the control data, while the control data is communicated to the document processing device directly straight from the network interface controller and independently from the job data.

The arguments above to distinguish claim 1 are equally applicable to distinguish claim 7. **Sorkin** discloses a system in which the network server performs two functions: (1) receives and transmits the control data and (2) receives and transmits print job data. According to the Applicants' concepts, a DFE controller is employed to convert the print job data into the byte definitions as set forth in claim 7. **Irie** describes a system which includes a printer server. The printer server includes the data conversion part which converts the print data delivered from the spool control part to form a job which is transmitted to the printer. Irie is not concerned with segregating job data from all other data. Neither Sorkin nor Irie, taken singularly or in combination, discloses or suggests using the device controller for translating the print job data into printing signals and the network interface controller for routing

jobs coming to the printer.

It is therefore respectfully submitted that **claim 7 and dependent claims 8-18** distinguish patentably and unobviously over Sorkin and Irie.

Claims 19-20 Distinguish over Sorkin and Irie

Claim 19 calls for among other elements: an intelligent interface network controller (iNIC) for selectively communicating the job data and control data independently from one another directly to or from the printer, which control data bypasses flow path communication through the DFE during printer communication with the network.

The arguments above to distinguish claims 1 and 7 are equally applicable to distinguish claim 19. **Sorkin** discloses the network server which performs two functions: (1) it receives and transmits the control data; and (2) it receives and transmits print job data. As set forth in claim 19, the network controller segregates the print data from all other data such that the control data bypasses flow pass communication through the DFE during printer communication with the network. **Irie** describes a system which includes a printer server. The printer server includes the data part which converts the print data delivered from the spool control part to form a job which is transmitted to the printer. Irie is not concerned with segregating job data from all other data. Neither Sorkin nor Irie, taken singularly or in combination, discloses or suggests segregating the print job from all other data such that the control data can be routed directly to the printer bypassing the printer controller and print job data can be routed to the interface controller.

It is therefore respectfully submitted that **claim 19 and dependent claim 20** distinguish patentably and unobviously over Sorkin and Irie.

Claims 22-23 Distinguish over Sorkin and Irie

Claim 22 calls for among other limitations: segregating, at the interface controller, the control data from the job data; communicating the control data directly to the document processing device and the job data to the DFE; whereby the control data is communicated to and from the document processing device exclusive of a

flow path through the DFE. The arguments above to distinguish claims 1, 7 and 19 are equally applicable to distinguish claim 22. **Sorkin** discloses a system in which the network server performs two functions: (1) receives and transmits the control data and (2) receives and transmits print job data down the line. The client computer merely transmits the job data and control data. The client computer does not segregate the job data from the control data and restrict the control data from running through the DFE. As set forth in claim 22, the interface controller segregates the job data from the control data such that a DFE controller is availed of the control data flow. **Irie** describes a system which includes a printer server. The printer server includes the data conversion part which converts the print data delivered from the spool control part to form a job which is transmitted to the printer. Irie is not concerned with segregating job data from all other data. Neither Sorkin nor Irie, taken singularly or in combination, discloses or suggests using the device controller for translating the print job data into printing signals and the network interface controller for routing jobs coming to the printer to the device controller and routing all other data directly to the printer.

It is therefore respectfully submitted that **claim 22 and dependent claim 23** distinguish patentably and unobviously over Sorkin and Irie.

CONCLUSION

For the reasons detailed above, it is submitted all claims remaining in the application (**Claims 1-23**) are now in condition for allowance. The foregoing comments do not require unnecessary additional search or examination.

No additional fee is believed to be required for this Amendment B. However, the undersigned attorney of record hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Deposit Account No. 24-0037.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he/she is hereby authorized to call Marina V. Zalevsky, at Telephone Number (216) 861-5582.

Respectfully submitted,

FAY, SHARPE, FAGAN,
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5/17/05
Date

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